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Running Head: PRACTITIONERS' BELIEFS ABOUT THEIR ROLE

Working with Toddlers in Child Care: Practitioners' Beliefs about Their Role

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## Abstract

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This exploratory research analyzes child care workers' beliefs about the nature of their practice in center-based child care programs. Twenty-one female child care workers who worked with toddlers (aged 1 to 3 years) participated in the research. The participants were videoed in their practice and later interviewed about how good practice in child care could be described. In the interview, the video of participants' practice was also reviewed to discuss salient videoed events to elicit further evidence about the nature and structure of beliefs that informed practice. The focus of the data analysis was to ascertain how affective, cognitive and executive functions of teaching in child care were represented in the practitioners' beliefs and how well those beliefs were integrated into a relational structure. All child care workers identified the affective (care) function as a feature of their practice in working with toddlers. Fewer participants (71%) identified the cognitive (education) function or the executive function (38%) as features of their role. Only 2 child care workers were judged to have a highly sophisticated and relational belief structure integrating affective, cognitive, and executive functions in how they discussed their practice with toddlers. Greater emphasis in professional training for work in child care settings should be placed on exploring the expectations and beliefs that child care workers hold about their role in teaching young children and how that role is instrumental in supporting early learning.

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### Working with Toddlers in Child Care: Practitioners' Beliefs about Their Role

The provision of affordable and accessible child care remains an important social policy issue in Australia (Doiron & Kalb, 2005). Quality of child care is also a significant focus of social policy in order that children receive care that enhances their learning and development. Many studies, stemming primarily from the United States, have identified key structural and process features of child care that are associated with better developmental outcomes for children (e.g., Burchinal, Howes, & Kontos, 2002; Clarke-Stewart, Vandell, Burchinal, Brien, & McCartney, 2002; Phillips, Mekos, Scarr, McCartney, & Abbott-Shim, 2000). However, there are other aspects, aside from structural and process features, that can also be examined to explore what constitutes child care quality. In this paper, the nature and structure of beliefs about practice held by child care workers who work in toddler programs are investigated to identify how the functions of care and education are represented in their beliefs. Responsiveness (i.e., a function of care) is a core of practice with very young children (McMullen, 1999; Manning-Morton, 2006). Yet, increasingly, it is recognized that the quality of early learning opportunities (i.e., a function of education) that are available is also very important in order that cognitive development is enhanced (Shonkoff & Phillips, 2002). If beliefs are held by child care workers in toddler programs hold beliefs that their work is about early education, as well as care, then such beliefs are likely to ensure higher quality of practice.

Policy and practice in early childhood services are framed by distinctions made between care and education (Braumer, Gordic, & Zigler, 2004). Care and education continue to be viewed as separate functions in early childhood services in western countries because historically child care services are provided within welfare, family, and employment jurisdictions while other early childhood services, such as preschools, are

often funded under education policies (Moss, 2006; Penn, 1999). Such a distinction is accepted in the community as a legitimate division which maintains perceptions that child care services do not provide early education (Lakoff & Grady, 1998). For example, child care employees are called workers rather than teachers and instead of providing education they provide care (Nall Bales, 1998). Thus, a dominant social frame about child care is that it is a service to meet parents' work-related needs rather than having potential benefits for children. Australian government policy with respect to child care is constructed on the basis that work-related reasons are parents' primary reason for using child care (Department of Family and Community Services, 1999). However, such policy directions should also recognize that child care services provide early education.

Children's early learning experiences are not at the forefront of the debate when child care provisions are discussed (Pugh, 2003). The foundation for success in later learning is set in the early years and the value of early learning experiences in child care should be recognized more strongly (Braumer et al., 2004; Penn, 1999). The nature of young children's learning is multi-faceted and ongoing from birth and lies across all domains of development (e.g., motor, social, emotional, language, cognitive). An inclusive approach to early childhood services would incorporate a view that child care programs are functionally equivalent to other early education services because they serve the same purposes to provide developmentally appropriate educational programs (Rostgaard, 2000).

### *Child Care Practice as Teaching*

A number of models have been proposed about what constitutes teaching (e.g., Joyce & Weil, 1996; Squires, 2004; Weinstein, 1998). The model of teaching proposed by Squires (2004) is used in this current study to explore how child care workers understand their teaching role with young children. Squires proposed a multidimensional framework to explain what constitutes teaching that is organized by three questions: What do teachers

do? What affects what they do? How do they do it? These three questions reflect core components of the framework which are described as functions, variables, and performance. *Functions* encompass what teachers do in order to facilitate learning, by their actions and interactions. The functions of teaching are described in detail in the following paragraphs. *Variables* take account of the contextual variations in which the teaching is situated. Important variables affecting practice include the setting in which the teaching is performed (e.g., a child care center); the nature of the content to be learned; and the age of the learner. *Performance* encompasses the manner in which teachers' work is "actualized in practice" (p. 348), including the procedures and methods used in the social setting of the classroom. Important performance elements in child care settings may involve the organization of the physical environment and the manner in which the daily routine is structured, as well as how resources are accessed by the children. However, Squires (2004) argued that it is the functions of teaching that really define a teacher's role. Squires differentiated affective, cognitive, and executive functions in teaching.

Affective functions are the interpersonal elements of the teaching role. A relationship is established between the teacher and the child when the teacher is responsive and sensitive to the child's individual needs. This responsiveness influences learning. McMullen (1999, 2006) has also noted the importance of the affective dimensions in child care practice with young children. The quality of the relationship between the adult and the child serves to motivate the child to engage in learning activities. Teaching behaviors, such as encouragement and expressing pleasure at children's accomplishments, serve to maintain the relationship and support learning.

Cognitive functions of teaching include actions that facilitate and support children's engagement with materials, peers and adults. Teachers stimulate children's language and thinking through encouraging engagement. They provide direction and

feedback, in order that children gain new knowledge and skills. Meade (2000) noted that adults in early childhood programs facilitate learning when they engage in meaningful discussions with the child about what is to be learned.

Executive functions are the metacognitive elements of teaching. Teachers who are critical thinkers are more likely to be reflective about their actions as decisions are made throughout the teaching day. These decisions and choices may be informed by theoretical understandings about children's development and learning (Wood & Bennett, 2000) or thoughtful understandings about important tenets of practice for working with young children. Practice requires heightened levels of attentiveness and awareness for the moments in the routine of the day where alternatives for action need to be weighed and judgments made that will achieve the desired goals of program (McMullen & Dixon, 2006).

An analysis of teaching in child care, or any other early education context, can be viewed through these functions. Squires (2004) maintained that, for any professional area of practice, knowledge about, "What I do", underpins professional identity and recognition. Squires' framework enables a distinction to be made between care (affective functions) and education (cognitive functions). Child care workers who focus only on care may limit the extent to which children's cognitive learning is supported in their practices. Child care workers who take account of all three dimensions (affective, cognitive and executive functions) in their practice are more likely to have embraced a more holistic understanding of their role.

### *Beliefs about Teaching*

Exploring practitioners' beliefs about their work in early childhood education programs has attracted substantial attention in recent years (e.g., Lin, Gorrell, & Silvern,

2001; McMullen & Alat, 2002; Raths, 2001; Vartuli, 1999, 2005; Wilcox-Herzog & Ward, 2004). This focus aligns with extensive research that has examined beliefs about teaching across a range of educational contexts. Exploring beliefs about teaching has generated a number of controversies including how beliefs and knowledge can be distinguished. Pajares (1992) distinguished beliefs and knowledge on the basis that beliefs are based on judgment and evaluation while knowledge is perceived to have an objective and verifiable basis. Similarly, Richardson (1996) proposed that knowledge must have evidence to back up its claims whereas beliefs are thought to be true without the necessity of providing evidence. In general, beliefs are considered to be resistant to change and remain held even in the face of contradictory evidence (Wilson, 1990). Nevertheless there is evidence that beliefs about teaching are modifiable (Alexander, Murphy, Guan, & Murphy, 1998).

Beliefs that teachers hold about their role stem from intuitive theories about what is teaching and what constitutes good teaching (Entwistle, Skinner, Entwistle, & Orr, 2000). These intuitive theories may be based on individuals' experiences prior to any professional training (Pajares, 1992; Phillips, 1995). Professional programs seek to build on these foundations of prior knowledge and 'impose' new theoretical knowledge upon the foundations, with greater or lesser effect. Thus, prior knowledge is very powerful in constructing ongoing personal beliefs about teaching (Entwistle et al., 2000). Spodek (1988) noted that early childhood teachers' beliefs stemmed from personal practical knowledge rather than theoretical or technical knowledge about child development and learning and these implicit beliefs impact on their actions and interactions with children during the daily routine.

Phenomenography is an analytic technique that provides a means for describing qualitatively different ways of understanding a phenomenon (Marton & Booth, 1997).

Marton and Booth indicated that in order to understand any experience, including beliefs

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about teaching, one must be able to assign the phenomenon both meaning (referential dimensions) and a structure (relationships between different aspects of meaning). Referential aspects of teaching would encompass affective and cognitive beliefs (Entwistle et al., 2000; Squires, 2004), as well as what Squires termed the executive function. Structure reflects how different beliefs relate to each other. The structure can take different forms from a mere listing of ideas to a holistic perspective that identifies how the affective, cognitive and executive dimensions relate to each other (Entwistle et al., 2000). An integrated belief structure indicates an appreciation of the breadth, depth and complexity of teaching. Teachers who express their beliefs with an integrated and relational structure hold a sophisticated understanding of their role (Entwistle et al., 2000).

Sophisticated beliefs derive from a thoughtful evaluation of experiences, reflecting individuals' capacities to be reflective about the knowledge that informs their practices. Sophisticated beliefs involve a "strategic alertness to classroom events" in which "the teacher can take the part of the learner" (Entwistle et al., 2000; p. 23). Less sophisticated belief systems may focus on only one domain (e.g., either affective or cognitive). Teachers who hold less sophisticated belief systems are less likely to be reflective about their practice. Implicit in using a continuum of high to low sophistication in belief structure is an assumption that teachers who hold more sophisticated beliefs will also be more effective in their practices to enhance children's learning. Relationships between beliefs and practices have been demonstrated in research across a range of teaching contexts (Brunning, Schraw, Norby, & Ronning, 2004).

### *Research Focus*

Exploring child care workers' personal beliefs about their work with young children in toddler programs provides an opportunity to understand if their orientation to their role encompasses care and education functions. Thus, the purpose of this research is

to explore how the functions of teaching identified by Squires (2004) are represented in participants' explanations of child care practice. Specifically, do child care workers conceptualize their role as care (i.e., focus on the affective function) and education (i.e., focus on the cognitive function)? Do they express beliefs about overarching principles that inform practice (i.e., focus on the executive function)? Additionally, are these beliefs integrated and elaborated to reflect a holistic and sophisticated understanding of teaching in child care? This research provides a basis for understanding how the practices of child care workers who work in toddler programs are constructed through the beliefs that child care workers hold.

### Research Method

The data analyzed in this paper stems from a body of research that involved 21 child care workers employed in toddler programs in center-based Australian child care programs (Berthelsen, Brownlee, & Boulton-Lewis, 2002; Brownlee, Berthelsen, & Boulton-Lewis, 2004). Child care workers were videoed in practice across one morning, as they interacted with children, aged from 1 to 3 years, in daily routines and activities. The participants were subsequently interviewed to explore their beliefs about practice; the knowledge that informed their practice; their personal approach to learning; and their understandings about how children learn. The interviews involved a set of structured questions and a review of the video as a basis for reflection on their own professional practice. In the data collection for this research program, video taped observations and interviews took place over a 3 year period.

In previous papers, Berthelsen et al. (2002) and Brownlee et al. (2004) analyzed a restricted data set that comprised the initial six child care workers who were recruited to the study in 2001. These previous analyses used theory related to personal epistemology to

explore the relationships between knowledge informing child care practice, beliefs about personal learning, and beliefs about how children learn. This paper extends previous analyses by including the complete group of 21 child care workers who participated in the overall research program. The analyses in this paper focus on a discrete interview question to describe good practice in child care, as well as participants' reflections on their own practices evident in video excerpts. This paper provides a more in-depth analysis of the content of child care workers' beliefs about their practice than was developed in previous papers, and uses a different theoretical framework for the analyses.

#### *Recruitment of Participating Child Care Centers*

A listing of centers within a large metropolitan city which offered programs for children aged less than 3 years was obtained through a publicly accessible database of registered child care centers. From this listing, centers were randomly selected for contact. Center directors were phoned and the nature of the research explained. Directors were asked if they were willing to receive further mailed information about the project and then recontacted regarding the participation of the child care worker who was responsible for the toddler program. When preliminary agreement was obtained from the director, detailed information was forwarded to the nominated child care worker about the research process and an informal visit was made by the research assistant to further explain the research and build rapport with the child care worker before the video session. Across the period of the study, 55 centers were contacted and 21 centers agreed to participate. Reasons given for non-participation at the initial phone call included a lack of interest in the research, lack of time to be involved, or discomfort with the use of video.

#### *Participants*

Child care workers who are employed in center-based child care services across

Australia and who are responsible for a group of children (group leader is the terminology in use) are required by state regulations to hold a two-year vocational qualification for child care work. The standard national nomenclature for a group leader qualification is currently the Diploma of Children's Services. Previous to the advent of this common nomenclature, relatively equivalent qualifications for child care work (i.e., a two-year qualification) had various titles across the Australian states. These titles included Associate Diploma of Child Care or Diploma of Child Care and Education, as evidenced by the different titles of the qualifications of participants in this study. In Australia, across many industries, vocational programs (e.g., for child care) are based on nationally endorsed standards for recognizing and assessing students' skills (Smith & Keating, 2003). The standards for child care training which inform the design of the Diploma of Children's Services include such competencies as: planning care routines; establishing and implementing plans for developing responsible behavior; documenting, interpreting and using information about children; and working in partnership with families (Department of Education, 2006).

In Table 1 the participating child care workers are introduced with details of their qualifications, years of experience in the child care field, and period of employment in their current center. The 21 participants were all female. Nine child care workers were under 30 years; 7 were aged 31 to 40 years; and 5 were aged over 40 years. Most participants held a two-year vocational qualification for child care work (variously titled). Two of the child care workers (Barbara & Arlene) had prior degree qualifications before completing qualifications to work in child care. One participant (Rhian) had completed a Bachelor of Teaching (Early Childhood), a three-year degree, as her first qualification and was in the process of upgrading this qualification to a four-year education degree which would enable her to be registered formally as a teacher in the school system. Two other

participants (Lee & Felicity) were also studying to upgrade their qualifications. Seven participants had 5 years or less experience in child care settings; seven had between 6 and 10 years; and seven had more than 10 years experience in child care work.

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### *Data Collection*

In each toddler program, a video was made of the child care workers' interactions with children across a morning session. Interactions with children included routine events (e.g., snack times, transitions between activities, and arrivals) and non-routine events (e.g., indoor or outdoor free play activities and incidental social interactions). The research assistant was instructed to follow the child care worker and capture her interactions with children. The length of the video record varied, according to the routine of the program and judgments made by the research assistant. While the research assistant was in each program for at least 3 hours, she did not necessarily film for that entire time (e.g., the focus child care worker went on a break or interruptions occurred when she was interacting with parents or other staff and therefore not in direct interaction with the children). Each video of practice was judged by the research team to contain sufficient interactional events of length of five minutes or more from which to draw segments for the stimulated recall section of the interview.

Following the video session, an interview was arranged with the child care worker. The interview had a common set of structured questions. This set of questions was adapted for the child care focus in this research from previous research on epistemological beliefs (see Brownlee, Purdie, & Boulton-Lewis, 2001). The initial question in the interview was:

“What is good practice in child care?” In this paper, a primary focus for the data analysis is each participant’s response to this single question. Other structured questions in the interview focused on: (a) the nature of knowing and knowledge in child care practice (e.g., What have been the most important sources of knowledge that have influenced your practice? Do you agree with the idea that there are no right answers in child care and that anybody’s opinion is as good as anybody else’s?); (b) questions about personal learning (e.g., How do you go about finding out important information that can help you in your practice? Tell me about a learning experience that you’ve had that was really good for your professional development?); (c) questions about how children learn (e.g., How do you think children learn? Can you think of an experience you have had with a child where you really noticed that he or she had learnt something?). Open-ended prompts were also used in relation to these questions to have the participants expand on their initial responses.

Following the structured interview questions, the video records were introduced into the interview in a stimulated recall process to elicit explanations about the recorded events. Stimulated recall has been widely used in educational research. The general process is to pose open-ended questions about videoed events (Lyle, 2003). The intent is that research participants may be able to relive an original situation with vividness and accuracy and recall what and why certain decisions were made in the situation (Meade & McMeniman, 1992). Stimulated recall elicits thoughts that reflect teachers’ practical knowledge as well as general beliefs and principles of teaching and learning (Dunkin, Welch, Merritt, Phillips, & Craven, 1998). It is an indirect method of obtaining evidence of cognitive activity, and like all such methods, findings should be evaluated with an acknowledgement of this constraint (Lyle, 2003).

A copy of the set of common interview questions and a copy of the video was forwarded to each child care worker prior to the interview. Thus, participants had the

opportunity to consider the questions before the interview, as well as to review the video. The same research assistant who had made the video conducted the interview. After the common set of interview questions was asked, the video of practice was reviewed. Prior to the interview, at least one of the authors reviewed the video in order to identify the segments on which child care workers' comments would be sought. These segments were selected because they were extended interactions with individual children or groups of children that represented common events in practice (e.g., routine activities such as transitions or snack time) or significant interactional events with children in non-routine activities. For each child care worker, a minimum of six interactional segments were identified for discussion with an average of nine across the participant group. Selected segments were reviewed and open-ended prompts were used to elicit explanations about the observed practices. Prompts included statements such as: "Tell me more about this segment." or "Describe what is happening here." This allowed participants to frame their responses in whatever way they interpreted the question. The interviews were audio-taped and transcribed verbatim.

### *Data Analysis*

The data analysis had two stages. At the first stage, the expressed beliefs were analyzed to identify how the affective (care), cognitive (education), and executive (metacognitive) functions were represented. In the second stage, the degree of integration and elaboration of the expressed beliefs across the affective, cognitive and executive functions were assessed in order to identify if participants held a holistic understanding of their teaching role.

#### *Stage 1 analysis*

A profile was developed for each participant that contained role statements from

the interview about beliefs and practices. The key record for analysis was the response to the question that asked how good practice in child care could be described. Other role-related beliefs were identified from the sections of the interviews when the video excerpts of practice were discussed. Responses that explicitly referred to 'role' or 'teaching' and statements that included 'mentalistic' terms (e.g., 'I believe ...' or 'I think ...') were considered significant to this analysis. The first step in the analysis identified whether any statement in a participant's profile could be considered to represent the affective, cognitive, or executive functions. The criteria used are presented in the following paragraph. This first step in the analysis, thus, used a priori categories from the model proposed by Squires (2004). Any representation of the functions (in one or more statements) was sought. This enabled the number of participants who mentioned any function to be identified.

The criteria used to classify referential statements for the affective, cognitive or executive functions were: *Affective referential aspects* included any statement about personal and interpersonal features of practice which included personal feelings, children's feelings, or practices concerned with relationships with others (Entwistle et al., 2000). *Cognitive referential aspects* included any statement that referred to understandings about how children think and learn and how learning is facilitated by adults (Entwistle et al., 2000). *Executive referential aspects* included any statement that referred to overarching principles that informed daily decision-making that took account of theoretical ideas and major tenets informing practice (Squires, 2004).

The second step in the analysis was to identify subordinate themes within the collective statements for any participant for the manner in which the affective, cognitive and executive functions were represented. Statements for each function were open-coded for common themes. These were emergent categories, subordinate to the representation of the functions in each participant's profile. This process was completed by the first author.

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These analyses were then reviewed by the second author. Differences in categorization of each statement were discussed by the authors to arrive at a final judgment on the classification of each statement. Minimal changes were made, except for the titling of the emergent categories within each function. For any participant, there could be more than one statement for any function which could be coded into one or more of the emergent categories.

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### Stage 2 analysis

In this stage of analysis, a judgment could be made from the matrix of representations whether, or not, affective, cognitive and executive elements were present in the statements from each participant. Decisions were then made about the relational structure of the expressed beliefs (i.e., the degree of integration and elaboration in how beliefs about practice in child care were described) for each participant. Participants could be ordered on a continuum in accordance with the judgments made by the two authors on the level of sophistication of the structure through low, medium to high sophistication. Criteria used to inform judgments of *low sophistication of belief structure* were made when the overall set of statements from any participant focused on just one referential element (e.g., affective) and that the beliefs about practice were a listing of ideas without integration. Judgments of *medium sophistication of belief structure* were made when the overall set of statements from any participant included more than one referential element (e.g., affective and cognitive) with some integration and elaboration of the elements indicating a relational understanding between the various functions of their role. Finally a *high sophistication of belief structure* was evident when the overall set of belief statements were integrated, elaborated and included affective, cognitive and executive functions. Such statements reflected relational understanding and an expanded awareness of the relationship between child care practices and children's learning and development.

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## Findings

In this section, the referential (affective, cognitive, and executive) aspects of child care workers' beliefs are first discussed, followed by the analyses of the relational structure of the belief systems held by participants. The manner in which the nature and structure of beliefs related to experience and qualifications of the child care workers is also considered.

### *Referential Aspects of Beliefs*

Referential aspects of beliefs are concerned with meaning. Meaning attached to teaching can be conceptualized as having affective and cognitive functions (Entwistle et al., 2000; Squires, 2004), as well as executive functions (Squires, 2004). Within each

function, ~~different categories of meaning could also be described. These are categories that emerged from the data through open coding of statements in relation to each function.~~ ~~Different statements for any participant, in relation to any function, could be coded under more than one emergent category.~~ A summary of this qualitative analysis is presented in

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### *The affective function*

The affective function has personal, interpersonal or care components. All the child care workers referred to this function, as might be expected because child care work has a high emphasis on nurture especially with very young children (McMullen, 1999). Emergent categories referred to the importance of building relationships with children and with families, as well as the personal qualities needed for child care work.

*Building relationships with children:* The importance of building relationships with children and meeting individual needs was identified by 76% (16) of the child care workers. For example:

*Sally: Building a relationship with the children so that I can understand their needs because they all have such diverse personalities like we do.*

*Jeannie: In one word probably responsive, like responding to their needs or their interests.... I mean if they need a hug or just the most basic things. I probably think just being in tune with them and being responsive to them.*

*Building relationships with families:* The value of building relationships with families, either to meet parental needs and/or children's needs was referred to by 52% (11) of the child care workers. For example:

*Rhian: It is being sensitive to the children's needs, but also being sensitive to the family needs and trying to meet both of them equally, because ... I think quite significantly both family and children need the support of a caregiver and I think it's the caregiver's role to be there for both.*

*Belinda: It involves including the families in the day to day events of the center as well as within what the group do each day. And I think that a good center that provides quality care should be like an extension of the family, which gives the children a feeling of security, and a sense of belonging, and being loved and cared for, that sort of thing.*

*Personal qualities required for child care work:* Personal qualities that were identified included being positive, patient, kind, and sensitive. Such statements were made by 19% (4) of the child care workers. For example:

*Mary: I think that someone whose kind and caring; and someone whose aware and sensitive to each child's needs and interests; if they're upset give them cuddles and stuff like that, show sympathy.*

*Denise: All caregivers need to be open-minded, and they need to have patience, and be able to handle the pressure, because it is very demanding. It's a very demanding*

*sort of job. And especially in the toddler room, you definitely need patience, that's the most important thing.*

### *The cognitive function*

The cognitive function is about facilitating children's learning by engaging children in interactions with materials, peers and adults. The cognitive function of child care practice was identified by 71% (15) of child care workers. Emergent categories referred to the role of the adult as a model or guide; an interactional partner; teacher of skills; or provider of opportunities for independent learning.

*Adult as a model or guide:* The role of adults as being a role model, guide, or supervisor for children's learning was mentioned by 76% (11) of child care workers who referred to the cognitive function. For example:

*Helen: I believe that in good child care practice you need to model correct behavior, model correct language, because you are so influential in that child's life. They learn so much from you.*

*Denise: My primary role, I feel, is a supervisor. Even though we do tend to plan activities ... or we have objectives in mind ... we try to encourage them, well certain children at certain things, but I find that when they're outside, it's their time to be free; their time to run around; their time to do things that aren't structured. It's really up to them.*

*Adult as an interactional partner:* The value of dialogue, asking open-ended questions, and listening to children was identified by 60% (9) of the child care workers who referred to the cognitive function. For example:

*Marie: And talking to them all the time, we are constantly talking to them. It's a bit like talking to yourself because they can't answer you; but you know that they understand what you say, even the ones that are too young, you are still constantly talking to them and then they eventually understand and that's the way they learn language.*

*Barbara: You have to be as aware as possible, but also aware of the fact that you can make mistakes yourself and feedback to the child, "Is this what you mean?"; "Is that what you said?" It's two-way communication.... And you can see in a child's face that you connect, even when they can't communicate [verbally] you can often see in their nonverbal, "She understands me".*

*Adult as a teacher of skills:* The importance of supporting children's attainment of particular cognitive skills was identified by 33% (5) of the child workers who referred to the cognitive function. For example:

*Carol: This week I am focusing on colors. I noticed last week that some children needed help with colors, so I've planned for them with colors. Tomorrow I'm doing squares, rectangles, triangles and circles in colored shapes. I've got big cut-outs and I'll just lay them on the mat and ask them to find the blue triangle and the red thing.*

*Sandra: At the moment all their language is one word sentences so basically we're encouraging that but we're trying to use full sentences and we get the children to repeat a lot of words that we say to them. So all the focus words they will repeat and [we] often try to use an open-ended question or try to use a sentence that has that focus word at the end because they often repeat the last word. So hopefully if they keep repeating the word then it will stick in their mind.*

*Adult as a provider of opportunities for independent learning:* The need to encourage children to develop independence and to experiment in order to learn was identified by 24% (4) child care workers who referred to the cognitive function. For example:

*Shelley: Encouragement for them to feel the textures of different things and, you know, note the coloring and feel the glue or the paint or whatever because that's what they're going to do and it's just, "Oh, that's sticky." "Do you want to wipe your hands?" So they're learning. It's all okay. And I think that's what we want because it's a process and not what you produce.*

*Lee: So I think it's really important that they once again take responsibility for their play area. It's a good grounding for them to start to learn to do things for themselves, develop independence and still follow rules.*

### *The executive function*

Squires (2004) discussed the executive function of teaching as the manner in which overall judgments are made to frame teaching actions. Evidence for overarching principles that inform practice was present in statements from 38% (8) of the child care workers. Overall decision-making was based on developmental knowledge and observations, as well as the need for flexibility and adaptability in the daily routine.

*Developmental knowledge informs practice:* The importance of developmental knowledge and observation to inform planning for individual needs was identified by 75% (6) of the child care workers who referred to the executive function. For example:

*Helen: All the time, you have to know what stage of development that they are in so that you can then program around that. You can develop your program to meet those burgeoning needs, those new needs and those new skills that are going to happen soon; so, if I can see that Hannah is starting to see that there are differences [make comparisons], then maybe I can program things where you have books or picture cards with all different things.*

*Lee: I guess also it's providing a program that's very diverse so it covers all your developmental areas and is based on the interests of the children.*

*Flexibility and adaptability in daily routines:* Allowing the pace and direction of the program to be directed by the children was emphasized by 38% (3) of the child care workers who referred to the executive function. For example:

*Sally: Be able to pre-empt what might happen, so if the children are getting a bit tired, knowing what to do before it gets to that stage. Understanding their development enough to be able to predict those things and alter what's happening in the room, or in the yard, or with the routine to fit into their needs so that they are kept happy and are confident in themselves.*

*Felicity: I basically just go with the children. It's their choice what they choose to do and I interact with them. They don't interact with me. It's their day. It's their environment. I'm the outer person in their environment really, so I interact with*

*them. I'm constantly changing my ways to make sure that I'm involved as well.*

### *Structure of Belief Systems*

Apart from the referential components of practice (affective, cognitive and executive functions), it was also possible to analyze the overall structure in the organization of beliefs for each participant. A judgment was about the relational structure of the expressed beliefs (i.e., the degree of integration and elaboration in how beliefs about practice in child care were described). Participants could be ordered on a continuum in accordance with the judgments made by the two authors on the level of sophistication of the meaning expressed and the structure through low, medium and high sophistication.

These judgments were not necessarily related to the length of the response, but those child care workers who were considered to be low in sophistication in their expressed beliefs about practice had usually brief statements with little elaboration. While this was also evident for many of the participants considered to have a medium level of sophistication, these participants were much more likely to discuss more than one function and to make connections, for example between affective and cognitive elements.

A judgment of less sophisticated integration of beliefs was made for 29% (6) of the child care workers (Mary, Margaret, Carol, Melanie, Helen, & Denise). They focused primarily on the affective function in their description of good practice in child care. For example:

*Melanie: I think good caregiving is providing children with the basics, like love and food and shelter and respecting each child's individual needs and requirements.*

This was Melanie's response to the single question on what is good practice. Melanie has been working in the child care field for nine years so she had a range of experiences on which to draw. Additionally, her responses to the video excerpts reviewing her practice were no more elaborated or relational in structure than was evident in the

above statement. Her responses were primarily descriptive. For example:

*Interviewer: You start to engage in dramatic play with the children. I just wondered can you tell me about your engagement?*

*Melanie: I find that if I sit down with them and engage in dramatic play with them than they're more eager to sit down and do that as well. ... And I find that sometimes when I walk away from it, then they just sit there for a bit longer and they'll keep engaging in that play with each other.*

Margaret was also considered to have a less sophisticated belief structure. Her beliefs were also not integrated or elaborated and primarily affective.

*Margaret: Pretty basically I'd say that if you're meeting the needs and wants of the children, everybody's happy.*

*Interviewer: So you were saying meeting the needs of the children?*

*Margaret: Yeah, because everybody's happy. The children are happy. The parents are happy. I think that's sort of the basics. If you're meeting all the needs of the children and of the parents and everybody's happy. I think, yeah, that'd qualify as good caregiving in my book.*

Sixty-two percent (13) child care workers evidenced a medium level of integration of beliefs structure, with higher ordering accorded to those who had more integrated and elaborated ideas. For example, the following statements from Lee and Kelly encompass affective, cognitive, and executive functions and have some level of relational structure.

*Kelly: It's responding to the children's needs, whether that be a physical need or emotional, or one of the developmental needs in a way, that is suitable for that particular child. ... Some children need more physical contact and touch to be reassured in their environment than others. Other children are quite happy to go off and do their own thing... then there's also the safety aspect and ensuring that all their safety and hygiene aspects of your care are there... and then you come into meeting their needs which we try and do ... through our interactions, well my interactions with them and the person I work with.*

*Lee: I think good caregiving is providing a program that is nurturing and*



*educational and caters for all individual needs and is provided in an environment that's safe and loving where the children feel really secure. I guess also it's providing a program that's very diverse so it covers all your developmental areas and is based on the interests of the children. ... Not being afraid to experiment with new ideas whether it works or fails.*

Sophisticated conceptions of teaching are likely to integrate affective, cognitive and executive functions derived from a thoughtful evaluation of experiences. There is a strong awareness of the role of the adult, a commitment to promoting understanding, and an empathetic understanding of children. Ten percent (2) of the child care workers (Barbara & Rhian) were considered to hold the most sophisticated beliefs because they described their practices in an integrated and elaborated way with reference to affective, cognitive and executive functions. These child care workers also held higher education qualifications than all, but one, of the other participants. Barbara held a degree in a speech therapy as well as an Associate Diploma of Child Care. Rhian held a Bachelor of Teaching (Early Childhood) and was upgrading this qualification to a four-year education degree.

Barbara's practice is guided by a strong affective orientation which she describes as effective responsiveness. While responsiveness is a key element of practice, she also recognizes that she has a role to children to teach children new behaviors (i.e., a cognitive function of practice). Her practice is guided by careful observation of children. From her observations, she makes decisions on what actions are appropriate to the situation (i.e., an executive function). Her statements describing good child care practice are integrated and elaborated and demonstrate a relational understanding of important aspects of practice in teaching young children.

*Barbara: Effective responsiveness is very important to me, because it catches all age groups and it basically means that you are not only aware of what the child is saying in a verbal or nonverbal way, but you are responding in an effective way. You're not just going, "Mm mm, oh that's nice", that's an ineffectual response. If the baby cries*

*you show an effective response to that child, whether it be a cuddle or wording for the child. ... Offering alternatives to a cry, you know, "Instead of crying use your words", that sort of thing; and basically just having as much of your senses constantly on the alert.... I think a good caregiver listens with the tips of her toes and sees with the back of the head, even though you don't have to be on the child all the time - just observing and listening from a distance to pick up that little gem that you might need... or hearing exactly what's going on and being able to make an effective decision, "Do I intercept or leave them to sort it out."*

Rhian's description of good child care practice encompasses affective, cognitive, and executive elements. She noted the importance of responsiveness and sensitivity when working with children and their parents. She takes account of the developmental needs of individual children and her practice is guided by a notion of partnership. The structure of her beliefs is integrated and relational.

*Rhian: I think if you are there for the parents, you can gain a lot of valuable information and have a lot higher input and therefore you're able to be a lot more effective and a lot more responsive to the child. ... Hand in hand with that goes the communication with the parent and the child too, effectively be responsive to them... Positive communication, even when you have to tell them something difficult, you need to try and communicate it in a sensitive and professional manner. I think I throw in 'sensitive' because sometimes if you're over-professional it can sound almost, superior. You want to be sensitive and get their response rather than you being the expert. You want to be, almost like an equal, equal plane, so you're in a partnership. Caring about what the children actually feel, what they want, what their interests are, where they need to focus their development, where they would like to focus their play, and actually putting the children's interests and needs first and foremost.*

#### *Structure of beliefs in relation to experience and qualifications*

There was not a simple relationship between the level of sophistication of the structure of beliefs and participants' level of experience in the child care field. Two child care workers (Mary, Margaret) with less than five years of experience were identified as

having less sophisticated belief structures, together with four child care workers who had high levels of experience (Carol, Melanie, Helen, & Denise). While the sample in this study is relatively small, there seemed to be a stronger relationship between sophistication of belief structure and level of education. Most of the participants had a common level of education (i.e., a two-year vocational course). Two child care workers (Barbara, Rhian) who held degrees had the most sophisticated belief structures and also had reasonable levels of experience, 12 years and 13 years, respectively. Rhian was also engaged in further study to upgrade her three-year teaching degree to a four-year education degree which would enable her to be registered formally as a teacher in the school system. The third child care worker with a degree qualification (Arlene) had a medium level of sophistication in her belief structure. Two other participants (Lee & Felicity) who held Diploma qualifications and who were studying to upgrade their qualifications to Bachelor degrees, which might indicate higher commitment to learning and/or motivation to improve career opportunities, were also classified as having a medium level of sophistication of beliefs.

## Discussion

This exploratory research examined the nature of the beliefs that child care workers, who worked with children aged 1 to 3 years in center-based child care, held about their **role and practices in child care**. The analysis and interpretations of their beliefs primarily focused on how the key functions of teaching proposed by Squires (2004) were represented. In particular, representations of the affective, cognitive and executive functions of teaching were sought in the records of the research interviews. The child care workers were asked in the interview to respond to the question, “**What do you believe is good practice in child care?**” Additionally, other role-related beliefs were identified from a stimulated recall process in which the child care workers reviewed a video of their

Comment [A3]:

Comment [A4]: See use of word “role” above – I am just checking if we need to explain the leap between *beliefs about good practice* in child care and *beliefs about their roles*.

practice. The response to the direct question about good practice in child care together with the identified role-related statements from the stimulated recall segments of the interview enabled a profile of each participant's representations of the affective, cognitive and executive functions of teaching to be constructed for analysis. Judgments were also made on the quality of each child care worker's overall belief structure, that is, the degree to which the structure represented a relational and integrated view of practice encompassing the affective, cognitive and executive dimensions.

All child care workers identified the importance of the affective function in child care practice - a focus on care. Features of the affective function identified included building relationships with children, building relationships with families, and the importance of specific personal traits in teaching young children. Strongest emphasis was placed on developing relationships with children and understanding their individual needs. Such an emphasis may reflect informed theoretical understandings, for example, about the importance of attachment and emotional closeness as a foundation for children's ongoing learning and development (Howes, Hamilton, & Matheson, 1994; Howes, Hamilton, & Phillipsen, 1998) or that relationships enhance learning through the cyclical processes of propinquity (spending times together); joint activity (shared engagement in activities); and affinity (an inclination to develop a relationship) (Tharp, Estrada, Dalton, & Yamauchi, 2000). If beliefs stem from such informed understandings then the quality of practice with children is likely to be higher (Wood & Bennett, 2000). If such beliefs stem only from intuitive understandings about what is 'good for children' then the quality of practice is less likely to be of high quality. Consideration of whether beliefs are informed or naïve is an issue about the quality of specific beliefs that influence practice.

The affective function in teaching young children reflects an ethic of care. An ethic of care is not just about interpersonal relationships. It is also expressed through the support

that it provides for learning (Noddings, 1984, 1988). Seventy-one percent of the child care workers referred to the cognitive function in their role that supports children's learning. Features identified within the data included beliefs that the child care worker is a role model for children; that children's learning is influenced by the quality of interactions; that there is an instrumental role for child care workers to teach specific developmental skills; and/or that independence in learning should be encouraged. Strongest emphases were placed on the role of the adult as a model or guide and the importance of interactions to support learning. These ideas are in line with current theoretical understandings that learning is socially mediated and that the child is an observer in social settings who intently analyses other people's actions to make sense of the world (Rogoff, Paradise, Arauz, Correa-Chavez, & Angelillo, 2004). Beliefs that learning occurs through communication with others reflect constructivist views of teaching (Palinscar, 1998). As discussed for the affective function, if such beliefs stem from an informed theoretical stance, the quality of practice is likely to be of higher quality than the practices of child care workers who have naïve understandings about how children learn or their role in facilitating learning.

Goodnow and Collins (1990) noted that some beliefs may be more readily expressed in words than others. This may be so with respect to the articulation of ideas about teaching very young children. Fewer child care workers referred to the cognitive function of their role than to the affective function. Beliefs which are more retrievable in discourses are more likely to be amenable to reflection and change. While the stimulated recall strategy used in this research to review the videos of practice elicited a number of statements related to the cognitive function, the strategy was used in a very open-ended manner. The strategy is expected to allow participants to relive the original situation and explain why certain decisions that informed their actions were made (Meade &

McMeniman, 1992). More specific prompts to help draw out beliefs about children's learning and facilitating learning may have been needed to make these beliefs more explicit.

Evidence of the executive function in the beliefs of the participants was identified for 38% of the child care workers. The executive function of teaching is about key tenets of practice that are essentially praxis beliefs, metacognitive mechanisms by which practitioners regulate their own practice before, during, and after teaching (Hoffman-Kipp, Artiles, & Lopez-Torres, 2003). Features of the executive function identified within the data included beliefs that decision-making and actions were informed by developmental knowledge and observation and also that flexibility and adaptability in working with very young children were important. It was not surprisingly that there was a focus on developmental knowledge and observation as key tenets of practice because these foci are emphasized in professional courses for child care practice, particularly through the philosophy of developmentally appropriate practice (Bredekamp, 1990; Bredekamp, & Copple, 1997). Additionally, the recognition by a small number of the participants of the need for flexibility and adaptability in working with toddlers aligns with the ideas of McMullen and Dixon (2006) that high quality practice with infants and toddlers is about intentionality and purposefulness, while at the same time allowing the child to determine the pace of interactions. As for the affective and cognitive function, if such beliefs stem from an informed theoretical stance then the quality of practice is likely to be of higher quality than the practices of child care workers who are less aware of the global principles that guide their daily practice. While the executive function was not as strongly represented as the affective and cognitive functions, this may stem from a limitation in the data available for analysis that was based on the single question about good practice in child care and responses to the stimulated recall segments. There may have been limited opportunity

for participants to identify important principles that informed practice.

The range of beliefs that child care workers hold about their role are likely to connected pieces of information. Beliefs may be organized in the form of clusters or they may exist as hierarchies with some beliefs as central and other beliefs as more peripheral to core ideas. In this research, evidence for an integrated and elaborated structure of beliefs was sought and judgments made on the organization of the belief structure through low, medium, to high sophistication. Approximately, 30% of the participants were judged to be low in sophistication of their belief structure while 10% were judged to have highly sophisticated belief structures. Finer judgments about the relational structure of beliefs might have been made with more categories being used in the classification. However, as an initial exploration to analyze the structure of beliefs, this study has provided a direction for how future research could explore the relationships between different beliefs.

**Comment [A5]:** Did they say this?

The analyses indicated that the child care workers who held more sophisticated belief systems may be more highly educated. Education improves reflective and metacognitive skills (Hofer, 2004; King & Kitchener, 1994). However, the potential for professional programs to improve reflective thinking is more likely to be realized if there is an explicit focus on exploring the beliefs that students hold as they enter professional programs and, subsequently, if new knowledge is introduced how that knowledge fits with existing beliefs. If there is little speculation in professional programs about the nature of personal beliefs and why one holds certain beliefs then practitioners are less likely to develop a reflective stance (Kuhn & Udell, 2001).

Professional programs can provide skills for individuals to seek and critically evaluate evidence about effective practices to work with young children in order to arrive at informed understandings. While new knowledge may be introduced, individuals may not always give new and valid information the weight that might be expected unless they are

**Comment [A6]:** Reword perhaps?

asked to judge how it connects, or not, with existing personal beliefs. They may be slow to change ideas in the face of a great deal of valid information. They may set new information aside because it does not fit with their existing ideas. Additionally, for the purposes of predicting and inducing change in beliefs in order to improve the quality of practice, it is also important to identify which beliefs are most central and which are peripheral within individuals' belief structures. Beliefs which child care workers hold most strongly are likely to be beliefs that they may surrender very reluctantly. Furthermore, the main impetus of change in beliefs may be through encounters with viewpoints that differ from one's own. Variations in beliefs may be also evident in the nature of beliefs according to the age of the children with whom individuals practice. Working with very young children, for example, children under 3 years, may call for different beliefs to be enacted for effective practice than when teaching children aged 3 to 5 years.

In this research it was found that the beliefs of the child care workers could be distinguished by content domains. Child care workers conceptualized their role with a strong focus on care, the affective function. Fewer child care workers focused on the educational function of their role or identified key tenets informing practice. This research provides a new framework for understanding how the beliefs of child care workers can be constructed. Knowledge about children's learning is dynamic and child care workers need to remain informed and responsive to new ideas rather than to approach their work in a prescriptive way (Moss, 2006). Shonkoff and Philips (2000) noted that children's learning environments should be nurturing, stimulating and educating. Therefore, it is important that child care workers do perceive the affective as well as cognitive functions of their work with young children. Professional programs can focus greater attention to the prior beliefs, which individuals hold when they enter professional programs, about children, about children's learning, and about the nature of the role that they will have in teaching



children. While there has been a range of research on the beliefs of early childhood teachers (e.g., McMullen & Alat, 2002; Wilcox-Herzog & Ward, 2004), clearer direction and understanding on how to address belief change in professional programs is still needed in order to enhance the quality of child care practice.

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Table 1

*Descriptions of Participants*

Name	Qualification	No. of years in child care field	No. of years in center
Helen	Ass Dip <sup>a</sup> Child Studies	7	1
Barbara	B <sup>b</sup> Speech Therapy; Ass Dip Child Care	12	1
Carol	Dip <sup>c</sup> Child Care & Education	20	1
Denise	Dip Child Care & Education	2	2
Mary	Dip Child Care & Education	4	4
Shelley	Ass Dip Child Care & Education	12	4
Rhian	B Teach (EC) [studying for BEd <sup>d</sup> ]	13	10
Sandra	Ass Dip Social Studies (Child Care)	8	1
Belinda	Dip Early Childhood Education	10	3
Lee	Dip Children's Services [studying for BEd]	4	2
Melanie	Dip Child Care & Education	9	1
Tina	Dip Child Care & Education	8	4
Kelly	Dip Child Care & Education	11	4
Jeannie	Dip Child Care & Education	5	3
Sally	Dip Children's Services	3	2
Nicole	Dip Child Care & Education	6	2
Felicity	Dip Child Care & Education [studying for BEd]	6	3
Margaret	Dip Children's Services	3	1
Arlene	B Arts; Dip Child Care & Education	5	2
Denise	Dip Child Care & Education	13	10
Marie	Dip Child Care & Education	12	10

<sup>a</sup> Associate Diploma; <sup>b</sup> Bachelor degree; <sup>c</sup> Diploma; <sup>d</sup> Bachelor of Education

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Table 2

*Summary of Referential Aspects of Beliefs*

Functions and subordinate themes	Number of child care workers <sup>a</sup>	%
<i>Affective function:</i> Personal and interpersonal features of practice <u>Total number of statements (31)</u> Building relationships with children (76%: n = 16) <sup>a</sup> Building relationships with families (52%: n = 11) Personal qualities required for child care work (19%: n = 4)	21	100
<i>Cognitive function:</i> Role of adults in facilitating children's learning <u>Total number of statements (29)</u> Adult as model or guide (76%: n = 11) Adult as an interactional partner (60%: n = 9) Adult as teacher of skills (33%: n = 5) Adult as a provider of opportunities for independent learning (24%: n = 4)	15	71
<i>Executive function:</i> Overarching principles informing daily decision-making <u>Total number of statements (9)</u> Developmental knowledge informs practice (75%: n = 6) Flexibility and adaptability in daily routines (38%: n = 3)	8	38

<sup>a</sup>Numbers / percentages for the subordinate themes do not total to sample size or 100% because different statements for a participant could be categorized under more than one theme.

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subordinate to each function

